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2. *C. latitenta*, (!) Potts, found in Chester Creek, Pa., and in Western New York.
3. *C. tenosperma*, (!) Potts. First found by Mr. Potts in a rill at the Centennial Fair Grounds, Philadelphia, and later in New Jersey.

In conclusion let me state that the principal object in writing this communication for the Midland Naturalist is to stimulate students in its territory in the study of Fresh Water Sponges; I would like to see all localities in its territory where any of the species are found, reported in these pages.

Bibliography. *Bowerbank*, Monograph of Spongillidae 1863.

Carter, History and Classification of the known species of Spongilla, 1881.

Potts. Fresh Water Sponges, A Monograph. Proceedings of Academy of Natural Sciences, Philadelphia, 1887. This Monograph is indispensable for the study of American Fresh Water Sponges.

It covers the whole ground of Fresh Water Sponges and gives special facilities for the determination of all American species as far as known.

Vosmaer, Klassen und Ordnungen der Spongien. (Porifera) 2nd vol. of Bronn's, Klassen und Ordnungen des Thier-Reichs.

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Tentative List of Myxomycetes of Northern Indiana and Southern Michigan.

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The following list of the Myxomycetes of northern Indiana and southern Michigan represents only part of those actually observed in this locality, and only those species are mentioned which are at present found in the herbarium of the University. They were collected by Dr. J. A. Nieuwland of the botanical department of Notre Dame University, during the months of July and August in the year 1905. Favorable conditions for growth, warm weather followed by periodical rains, were prevalent at that time and many of the plants that were developed then have not been seen since.

Continued drought is extremely destructive to Myxomycetes as we had ample opportunity to observe last year. During 1909 not more than a dozen species were found in the same region and they were of the commonest kinds. These seem to develop under almost ordinary conditions. Among the few common slime-moulds that appeared last season are *Trichia varia*, *Arcyria denudata*, *Hemitrichia stipitata*, and *rubiformis*, *Fuligo ovata*, and *Lycogala epidendrum*. All of these developed in places that seem to produce such plants independently of periodic showers, as the localities are always moist, e. g. wet shady woods. Even *Fuligo ovata* was very scarce last season.

Whether the drought of 1908 will cause a larger crop of Myxomycetes to appear this coming season if rains are favorable remains to be seen. Many species that failed to develop may appear this year. In fact it was noticed that several forms are appearing unusually abundant and very early. *Lycogala epidendrum* one of the few that were found in 1908 was seen this year in a dry location on the University grounds in the interval of several warm days between two snow storms and this in spite of the fact that the season is very much backward. Two crops of the plants appeared about April 13 and April 20. The last crop coming out between two falls of snow. Snow enough to cover the ground appeared twice in fact since the last date. The plants were perfectly normal and healthy in spite of the cold. Some were fixed in chrom-acetic acid for later study while still in the plasmodial stage.

In 1905 Myxomycetes were found very abundantly in woods and fields free from trees, and even in marshes. A plasmodium of *Fuligo ovata* over a foot and a half square was found crawling over oak leaves which had been dumped into a marsh. The same plant was found coming up from the middle of a cinder-path in several places. Its presence here was quite puzzling until it was investigated. It was found to have come up from an oak stump under several inches of cinders through which the *Fuligo* crept to develop. Only a hundred yards away the same species was found on a dead poplar seven feet from the ground. *Physarum cinereum* usually appearing annually on the grass in the University lawn has for years taken at each reappearance the forms and configurations of the "fairy circles" of certain Basidiomycetes.

The words "common," "abundant;" etc., refer to the fact that other species were observed abundantly in nearby localities but duplicates were only collected from places at least two miles apart.

- Arcyria pomiformis* (Leers) Rost. 1875.
Found at Bankson Lake,
near Lawton, Mich., July 27, 1905.
- Arcyria incarnata* Pers. 1791.
At Bankson Lake, July 25, 1905.
- Arcyria ferruginea* Sauter, 1841.
At Bankson Lake.
Very common. July 25, 1905.
- Arcyria denudata* (Linn.) Sheldon. 1895.
In Studebaker's Woods,
South Bend, Ind. July 10, 1905.
Also Bankson Lake.
Quite Common. July 27, 1905.
- Arcyria digitata* (Schw.) Rost. 1875.
Woods at end of Prairie
Ave., South Bend, Ind. July 10, 1905.
Also Bankson Lake. July 27, 1905.
Very Common and
abundant.
- Arcyria cinerea* (Bull.) Pers. 1801.
At Bankson Lake. July 27, 1905.
Also Studebakers's Woods. July 10, 1905.
Very common and
abundant everywhere.
- Arcyria nutans* (Bull.) Grev. 1824.
North of Bankson
Lake. Common. July 27, 1905.
- Badhamia rubiginosa* (Chev.) Rost. 1876.
At Bankson Lake. July 27, 1905.
- Cribraria minutissima* Schweinitz. 1832.
At Bankson Lake. July 27, 1905.
Also Studebaker's Woods.
Common but hard to find. July 10, 1905.
- Cribraria dictydioides* Cke. and Balf. 1881.
At St. José Park, Bankson
Lake. Very common. July 24, 1905.
- Cribraria purpurea* Schrad. 1797.
At Bankson Lake.
Very Common. July 25, 1905.
- Cribraria splendens* (Schrad.) Pers. 1801.
At Bankson Lake. July 27, 1905.

- Ceratiomyxa fruticulosa* (Muell.) Macbr. 1899.
In Studebaker's Woods.
Common everywhere. July 10, 1905.
- Craterium leucocephalum* (Pers.) Ditmar, 1813.
In Studebaker's Woods. July 10, 1905.
Also Bankson Lake. July 27, 1905.
- Comatricha irregularis* Rex. 1891.
In Studebaker's Woods. July 10, 1905.
Also Bankson Lake. July 27, 1905.
- Cienkowskia reticulata* (Alb. and Schw.) Rost. 1873.
At St Joseph River
Portage near Notre
Dame, Ind. Rare. Aug. 1905.
- Diderma testaceum* (Schrad.) Pers. 1801.
At Joseph River Portage.
Quite Common. Aug. 1905.
- Diderma floriforme* (Bull.) Pers. 1794.
At Bankson Lake. July 27, 1905.
- Diderma niveum* (Rost.) Macbr. 1899.
In Ravine near St. Mary's
Academy, Notre Dame, Ind. Aug. 1905.
- Diderma globosum* Pers. 1794.
In Ravine near St. Mary's
Academy. Quite common. Aug. 1905.
- Diderma crustaceum* Peck. 1871.
In Ravine near St. Mary's
Academy. Aug. 1905.
- Diderma cinereum* Morgan. 1894.
At Bankson Lake. July 25, 1905.
Also near St. Mary's
Academy. Aug. 1905.
- Diderma spumarioides* Fries. 1829.
In ravine near St. Mary's
Academy. Aug. 1905.
- Diachea leucopoda* (Bull.) Rost. 1875.
At Bankson Lake. July 27, 1905.
- Didymium xanthopus* (Ditm.) Fries. 1829.
At Bankson Lake. July 27th, 1905.
- Didymium clavus* (Alb. and Schw.) Rabenhorst. 1844.
In Woods along Sumption
Prairie Road, South Bend, Ind. July 10, 1905.

- Didymium squamulosum* (Alb. and Schw.) Fries. 1829.
In Studebaker's Woods. July 10, 1905.
- Dictydium cancellatum* (Batsch) Macbr. 1899.
In Studebaker's Woods. July 10, 1905.
Also at Bankson Lake. July 27, 1905.
- Dictydium cancellatum* var. *purpureum* (Batsch) Macbr. 1899.
At Bankson Lake.
Very abundant. July 25, 1905.
- Enteridium splendens* Morgan. 1899.
On Sumption Prairie Road. July 10, 1905.
- Fuligo ovata* (Schaeff.) Macbr. 1899.
Near St. Joseph's Lake,
Notre Dame, Ind.
Common everywhere and
abundant throughout the season. June to Sept. 1905.
- Hemitrichia clavata* (Pers.) Rost. 1873.
In Woods south of
Sumption Prairie Road.
Common everywhere. July 10, 1905.
- Hemitrichia serpula* (Scop.) Rost. 1875.
At St. Joseph River
Portage. Rare. Aug. 1905.
- Hemitrichia stipitata* Mass. 1889.
At Bankson Lake.
Quite common. July 27, 1905.
- Hemitrichia vesparium* (Batsch) Macbr. 1899.
On Sumption Prairie
Road. Quite common. July 10, 1905.
- Lycogala epidendrum* Fries. 1829.
At Bankson Lake.
Also Studebaker's Woods.
Common everywhere. July 10, 1905.
- Leocarpus fragilis* (Dickson) Rost. 1875.
In Studebaker's Woods. July 10, 1905.
- Lamproderma arcyronema* Rost. 1875.
In woods along Sumption
Prairie Road. July 10, 1905.
- Mucilago spongiosa* (Leyss.) Morgan 1897.
At Bankson Lake. July 27, 1905.
- Physarum cinereum* (Batsch) Pers. 1801.
University Lawn. July, 1905.

- Physarum leucopus* Link. 1809.
Near St. Mary's Academy. Aug. 1905.
- Physarum sinuosum* (Bull.) Weimn. 1828.
At Bankson Lake. July 27, 1905.
Also at St. Mary's Academy. Aug. 1905.
Also at St. Joseph River Portage. Aug. 1905.
- Physarum plumbeum* Fries. 1829.
At Bankson Lake. July 25, 1905.
- Physarum pulcherrimum* Berk. and Rav. 1873.
At Bankson Lake. July 27, 1905.
- Physarum ellipsosporum* Rost. 1875.
Near St. Mary's Academy. Aug. 1905.
- Reticularia lycoperdon* Bull. 1791.
On Sumption Prairie Road. Quite common. July 10, 1905.
- Stemonitis fusca* (Roth) Rost, 1875.
At Bankson Lake. July 27, 1905.
Also Stukebaker's Woods.
Very Common.
- Stemonitis maxima* Schweinitz. 1834.
At Bankson Lake. Common and abundant. July 27, 1905.
- Tubifera Casparyi* (Rost.) Macbr. 1899.
At Bankson Lake. Rather Common and abundant. July 27, 1905.
- Tilmadoche viridis* (Bull.) Saccardo. 1880.
At Bankson Lake. Common everywhere. July 24, 1905.
- Tilmadoche compacta* Wingate. 1889.
In Studebaker's Woods. July 10, 1905.
- Trichia varia* (Pers.) Rost. 1875.
Near St. Joseph River Portage. Aug. 1905.
- Trichia persimilis* Karst. 1868.
Near St. Joseph River Portage. Aug. 1905.

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